



# **Idaho Technology Pilot Grant**

**Legislative Report** 

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#### **Retrospective Summary**

Tuesday June 3, 2014 marked the last day of year one of the KMS 1:1 Learning Project. As reported in the previous legislative report, Kuna Middle School (KMS) successfully deployed and implemented over 800 Chromebooks to each of its students and staff members. By using the Substitution, Augmentation, Modification, and Redefinition (SAMR) educational technology implementation model, KMS teachers focused their first year efforts on substituting the chromebooks in their classrooms for activities they were already doing.

Not only were Chromebooks used this year for classroom activities, but for statewide assessment as well. Schools in the Kuna School District with fewer students than KMS were scheduling up to five and six weeks of testing time. KMS was able to complete all of its SBAC testing in just four days. Each teacher went through proctor training so that they could assume proctoring responsibilities for another teacher's class. Students completed practice assessments days before the live test, and technical support was available in the library for students running into issues logging into the secure browser or completing the test. Students who did not have a chromebook due to behavioral issues or their device was out for repairs were sent to computer labs to complete their tests.

Another end of year assessment/project that KMS students must complete is a learning portfolio. Each student collects pieces of evidence to show their mastery of different standards. From writing samples to videos, students collected their work and put it together in a Google presentation. They then have to present their work to a panel of judges (made up of teachers from around the district) for a passing grade. This year with chromebooks for every student, limited lab space didn't affect when students could complete their work. When asked how Chromebooks affected their portfolio work, one student answered, "[It made it] easier. It was with me everywhere so I always had a place and space to work. When we didn't have these, you had to take turns with the computers and a lot of work wasn't finished or rushed." Students also had access to more variety of media tools to truly create and showcase their individual learning styles.

Chromebooks were also utilized for final exams during this first year of implementation. Online quizzes and tests, essays and papers, and other final exams were completed and collected digitally. This allowed teachers to take advantage of automatic scoring producing immediate results. It also made it more convenient for some of them to grade from home or anywhere they had internet connection.

Because chromebooks are an integral part of every aspect of learning at KMS, it is vital to keep them functioning. With only one building tech available, MOUSE Squad continued to play a vital role in keeping devices up and running. In the first year, they solved 250 cases alone. They were recognized by MOUSE Squad headquarters as the best new squad of the year!

(http://mousesquad.org/wire/mouse-squad-year-2014-and-winners-are)

#### **Initial Obstacles to Overcome**

One of the biggest obstacles towards the end of year one was damages to the devices and the amount of time it was taking to get them repaired and sent back. A common issue being seen was students being careless and dropping their devices. In an attempt to help build more responsible use of devices,

students were reminded of proper handling policies and the potential cost they could be responsible for to repair their device. A video was shared with students during advisory time with this information (<a href="https://www.youtube.com/watch?v=qgmBz\_5y\_Jk">https://www.youtube.com/watch?v=qgmBz\_5y\_Jk</a>). A new policy was also put into place, any device that was damaged severe enough to be sent out for repair would not be replaced with a loaner. This meant the student had to go without their personal device and log into one of the few computers available in the classroom to complete their work. All damages were also reviewed by building administrators and investigated to determine cause and responsible party. With these efforts, a significant decrease in device damage was noticed towards the end of the year.

Frequent and consistent damages noticed by the building technician revolved around the left hinge. Multiple devices were turned in with damage to the left hinge including but not imited to; cracked casing around the hinge, keyboard covers popping off the keyboard on the left, and screens becoming loose on the left hand side. When the issue was taken to Lenovo, they claimed to not know of any manufacturing issue that could be the cause of the damage, but agreed to pay for the devices currently in for repair. However, due to a shortage of parts needed to fix this repair many students had to finish the year without their chromebook. They either used a classroom desktop, or if the damage was deemed accidental or not the students' fault they were issued a loaner chromebook.

Before damage to the left hinge was noticed, screws were found all around classrooms and hallways. Turns out these screws were coming loose from the left hinge which could be the cause of the damage. The building technician removed a couple of the screws to identify its size and purchase more to repair devices when a discrepancy was discovered. The specs of the Lenovo ThinkPad x131e Chromebook claim that size 8 screws were used to hold the hinges together. When the screws were removed and measured they were only a size six. This discrepancy has been escalated to Lenovo in a second attempt to get assistance in covering the cost for the reoccurring damage and prevent any further damages.

#### **Baseline Student Achievement Data**

As stated in the original grant application one project goal is to increase the percentage of students completing a proficient writing sample for their Quarterly Writing Assessment (QWA). At the beginning of the 2013-2014 school year only 65% of KMS students scored proficient on their writing samples. By the end of the year, 73% were writing proficiently. The goal for the end of year two is to have 85% of students scoring proficient.

A second project goal also revolves around writing. Students are required to complete at least one Document Based Questioning (DBQ) paper in their social science class. Only 55% of KMS students submitted a proficient DBQ at the beginning of the school year. By the end, 82% were proficient. The year two goal is 85%.

Of course it takes great teachers to help improve student achievement, however the tools made available through the chromebooks can help assist with this improvement as well. When asked, 79% of the students at KMS said being able to type, edit, and revise their writing (both for the QWA and DBQ) on the chromebook and in Google drive was much easier. Teachers in all subject areas commented on the increase of writing they saw from their students with the chromebooks. With revision and editing being a

crucial step in the writing process it can be seen how the increase to tools that make that process easier will ultimately increase proficiency scores.

The third project goal revolves around math. Three sub-groups were identified for improvement needs based on the 2012-2013 ISAT math data; Hispanic students, students with disabilities, and economically disadvantaged students. Since the ISAT was not administered this year because of the SBAC, MAP data will be used to measure student growth. The table below displays the average score for 7th and 8th grade students in the three sub-categories. The on grade level score for 7th grade students in the spring is 230. The on grade level score for 8th grade students in the spring is 234.

Grade Level/ Testing Date	Hispanic Students	Students with Disabilities	Economically Disadvantaged Students
7th Grade Fall 2013	218	203	223
7th Grade Spring 2014	222	202	219
8th Grade Fall 2013	220	207	227
8th Grade Spring 2013	223	206	225

With a year two end goal of having 85% of the students in these sub-categories scoring on grade level or higher, the data suggests that there is still some intervention needed. With only 33% of the students at KMS currently preferring to use their chromebooks during math class, successful and helpful integration of the tool still needs to be explored.

#### **Other Baseline Quantitative Data**

An end of year survey was given to all students asking for their feedback on the first year of the 1:1 project. The first set of data shows how many students now prefer to use their chromebook in class instead of traditional paper and pencil:

Subject	% of Students Preferring to use Chromebook	
English Language Arts	62%	
Mathematics	33%*	
Social Sciences	57%	
Science	59%	

<sup>\*</sup>The tool preference in mathematics was pretty evenly split; 33% of students would rather use their chromebook, 35% would rather use paper and pencil, and 32% said they preferred to use both tools or didn't really have a preference.

When asked why students preferred to use their chromebooks many of them replied that it was easier and faster to use. One student commented this about completing their work digitally, "It is not just easier to remember, it is also easier to access if I forget." 86% of students said it helped them answer their own questions in class making it easier to move on with their work rather than having to wait for a teacher.

## **Professional Development/Teacher Discourse**

Monthly training for staff continued to be provided throughout the course of the year. Trainings were structured to offer new skills while reviewing old ones as well. This allowed teachers to individualize their training sessions to fit their needs. The year one project goal for teachers was to substitute chromebooks into their classrooms for at least note taking and assignment tracking by the end of the year. Only 7% of teachers identified themselves as **not** meeting this goal, while 58% said they exceeded the goal of substitution and were able to move on to augmentation and modification. Below are quotes from KMS teachers about their overall feelings and impressions of the first year of 1:1 at their school:

- It has made the education process more individualized, more accessible for students/teachers/parents/ administrators, opened up extensive avenues for enrichment and critical thinking activities. It has changed the teaching/learning process.
- I can have kids fact-check me mid-lesson, or ask them to Google something if there is a question I can't answer, and I like that.
- Chromebooks have allowed my class to have access to their textbooks online because we don't have enough copies for three classes at once.
- My students successfully use their Chromebooks every day. They have access to current research and resources that provide a rich, interactive experience that my textbook would never be able to do. My students produce a wide variety of products to provide evidence of their learning, and are able to choose which product media to use based on what type of evidence they are wishing to show. My students are able to collaborate efficiently on projects, the Chromebooks allow them to collaborate without finding a time to go to one anothers houses.

#### **Device Rollout**

Schoolwide device rollout was completed in September. As new students enrolled at KMS, they were shown deployment day videos

(<a href="https://sites.google.com/a/kunaschools.org/kms-1-1-learning-project/students">https://sites.google.com/a/kunaschools.org/kms-1-1-learning-project/students</a>) the day before they started classes. This ensured that they knew all chromebook rules and policies before gaining access to their device.

At the end of the year, devices had to be collected and inventoried. A check-in sheet (<a href="http://goo.gl/Pollsw">http://goo.gl/Pollsw</a>) was used to track each device. Teachers first evaluated each device and if any damage was found, students were sent to the library to have damages assessed by members of the technology team. Fines were given and devices collected. Devices belonging to 7th grade students were collected with their identification tags in place. They will be assigned the same device for the 2014-15 school year. Devices that belonged to 8th grade students were stripped of identification tags so that they can be reassigned to the 2014-15 class of 7th grade students.

## **Student Discipline/Digital Citizenship**

KMS teachers have struggled all year getting a handle on solving student discipline issues when it comes to misuse of chromebooks. As stated by one teacher, "[There are] no clear cut written consequences for chromebook misuse- Teachers are doing/assigning random consequences because no one has made it clear what the steps are AND follow through with the steps." The school is taking advantage of its Positive Behavioral Interventions and Supporters (PBIS) team to help establish and enforce policies for all teachers and students to follow.

While it is a struggle to keep students on task with chromebooks in their hand, many teachers started to notice a trend. "It can be a little easier for students in my classroom to get off task yet look like they are actually working. Then again, I notice these same problems when students are not actually using Chromebooks, as well, so I guess this is more of a management issue in general as opposed to something specifically related to Chromebooks." The recognition that while there is change management needed for a 1:1 classroom, change management will always be necessary whenever introducing a new tool to the classroom. It's not technology specific.

### **Fiscal Savings/Budget Update**

One of the biggest savings the Kuna School District has seen from the 1:1 project, is in the ability to help add other school devices to the wireless network. The high school has purchased four chromebook carts for use in their math, language arts, and agriculture classrooms. Because of the funds dedicated to the 1:1 project to build a sufficient network infrastructure to support mobile devices, other schools like the high school can pursue funding for more devices instead of having to allocate money for infrastructure.

It is also anticipated to see a cost savings in printing and copying costs, however those reports are not yet available for the 2013-2014 fiscal year.

# **Next Steps/Project Revisions**

Year two will focus on creating blended learning environments. A crucial part of a successful blended classroom is a functional learning management system (LMS). My Big Campus (MBC) was the LMS used during year one of the 1:1 learning project, and it did not live up to some teachers' expectations. Early adopters in the project ran into many problems with some limitations MBC had when it came to communicating and sharing with students. It was originally thought to abandon MBC and move to Edmodo, another LMS that many KMS teachers used. However, Google has announced a new product, Google Classroom, to be released in September. It is said that Google Classroom can replace other LMSs while maintaining direct integration with Google Apps for Education. Google Classroom is also supposed to integrate Hapara, which is the students monitoring program KMS teachers currently used. It was decided to wait for the release of Google Classroom before selecting a replacement LMS.

Because an LMS has not yet been decided on, teachers are currently working on digitizing their curriculum through Google sites. This allows them to create units and lessons collaboratively as a department and then easily transfer resources to the appropriate LMS. By digitizing resources through a

Google site, teachers will be able to transition between multiple LMSs easily. This flexibility is ideal since technology changes often and gets bigger and better every day.

Many KMS teachers are spending their summers preparing for a second year of 1:1. In one teacher's words, she is look forward to, "...creating more opportunities for students to collaborate on assignments and discussions."